

*The Float Representing Aplets, the "Confection of the Fairies," Which Took First Prize at the Blossom Festival During Apple Blossom Week at Wenatchee, Washington.*

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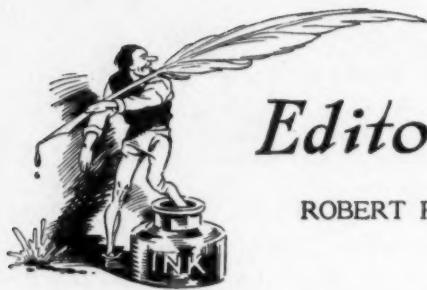
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## Editorial

ROBERT RANDOLPH, Editor

### Dr. Bundesen Sums Up

**W**E LISTENED to Dr. Bundesen's address at the Convention with a sense of deep gratification. It was one of those precious moments of sweet triumph—to know that we were no longer a voice crying in a wilderness—that here was the President of the American Public Health Association and a high municipal official, voicing the plea which we had so frequently directed upon deaf ears: "Candy for Health's Sake!"

In our editorials, "The Passing of an Inferiority Complex" (December, 1926), and "The Reaction Against Dieting" (June, 1927), we made serious efforts to arouse the industry from its lethargy and to urge the advisability both of combatting the various adverse forms of propaganda, such as dieting, etc., and of capitalizing through every channel of our advertising on the numerous and little-appreciated health-giving properties of candy. Now Dr. Bundesen's startling indictment of the confectioners' lost opportunities and their ignorance of the dietetic worth of their own products!

All the more forceful because of its detached viewpoint, and coming from a public health official who is far more interested in building healthy bodies than in the prosperity of the candymaker, it should provide the dynamite necessary to pry us loose from "Our Inferiority Complex," and even go so far as to make it a pleasure as well as a duty to contribute generously to the N. C. A.'s new educational advertising campaign.

But admirable as the new "Candy for Health" campaign should prove, alone it is not enough to overcome the Goliath of our past fifty years' inertia. Every one of us needs to "get religion"—to become personally converted to the truth of the idea—and to emphasize proudly in our individual advertising, whether by box designs, labelling or actual advertisements,

the vitamin content, the bone-building qualities, the energy value and other health-giving qualities of the particular candies we sell.

To this end let us so far as possible adapt our lines, endowing them with those beneficent qualities which will boost the "Candy for Health" idea along. There are undoubtedly a great many conscientious confectioners who not only do not know how their products rate in protein, calcium, vitamin content, etc., but who also are without the vaguest idea of where to go to get this information. However, there are many sources of aid ready to help them out in this emergency. The U. S. Department of Agriculture, the State and municipal public health departments, the food and chemistry departments of the various universities and institutes, are usually quite willing to ascertain this data for you.

The most important job which you can cut out for yourself is to find out all there is to know about the dietetic and health-giving qualities of the products which you are selling, and to proceed calmly and with the determination bred of conviction, to proclaim these virtues from the housetops, which is to say, in every single piece of packaging or advertising literature.

As part of the campaign to awaken general interest in the healthful properties of candy, THE MANUFACTURING CONFECTIONER is having a series of articles prepared which will analyze the dietetic qualities of the different classes of raw material used in candy, and will present this data along with the opinions of leading physicians and dietitians on the virtues of the candies which contain them.

*SELL YOURSELF:  
THEN SELL OTHERS  
on  
"CANDY FOR YOUR HEALTH'S  
SAKE"*

## A Seed That Bore Fruit

**S**HORTLY after the close of the first candy exposition at Grand Central Palace last October, we expressed the opinion that future shows open to the general public would take hold better if the exhibits included a few more comprehensive demonstrations of how candy is made:

*"There is still another feature of candy shows which remains to be exploited by the candy industry as a whole. No better means has yet been found to defeat malicious anti-candy propaganda than by bringing potential candy-eaters face to face with actual demonstrations of wholesome candy manufacture, with educational movies, or with lectures by prominent physicians and dietitians giving candy their verbal approval as the health and energy sweet. This educational phase was not sufficiently stressed at the exposition, nor were there enough exhibits of the practical and informative type."*

Whether as a result of our suggestion or of similar promptings from other sources, the show management has evidently recognized the need of such exhibits and taken the necessary steps to supply them. According to a current press release from the Exposition's Publicity Department, a number of pleasant surprises are in store for visitors to the Second Annual Exposition to be held at Grand Central Palace, October 1 to 6, 1928:

*"A considerable area has been engaged by this organization (the Confectioners' and Ice Cream Manufacturers' Protective Association of the State of New York) for a display which will form one of the Educational Features of the exposition. Here will be given a demonstration, by members of the Association, of 'home made' candy manufacture in*

*which latest style utensils will be used. In an adjoining section, and contrasted with these modern facilities, the Association will show obsolete machines and equipment, the collection of which is now in progress. Over each of these old and outmoded specimens will be a placard giving credit to the individual or firm who has loaned it to the Association for exhibit purposes.*

*"The exhibit will be supplemented in the booths of individual exhibitors, who will further demonstrate the peculiar advantages of the various types of machinery and equipment, and the purity and wholesomeness of the ingredients employed in confection manufacture."*

THE MANUFACTURING CONFECTIONER is happy that their suggestion has borne fruit and requests its readers to cooperate with the Exposition authorities in the matter of locating and loaning obsolete pieces of machinery and equipment representative of the historical periods through which the industry has passed.

Another development which gives promise of a successful and businesslike show next October is the announcement that Mr. A. E. Giegengack, of printing and allied arts fame, will succeed Mr. Jay C. Gangel as president and manager of the Exposition. Mr. Gangel will be kept busy lining up the exhibits.

If Mr. Giegengack makes as much of a success of the second candy exposition as he did of the fourth annual Graphic Arts Exposition, which was also held at the Grand Central Palace last year, neither the Confectionery Industry nor the public will have cause to complain of not getting their money's worth.

## All Right, Mr. Roorda, Let's Go

THE Cost Committee of the N. C. A., under the leadership of Mr. Roorda, has devised a Cost Manual which is a mighty fine piece of constructive work for the industry. An outline of the contents of this manual appears in this issue (page 48). One of the interesting features of this report is the promise of a practical cost finding system designed especially for the general line manufacturers who must know accurately their costs on each individual item.

A campaign to enlighten the manufacturers regarding the weight of *overhead*, for instance, in individual item cost determination would bring out some interesting information of great value to the industry at large. Depreciation, which is but a

proportionate factor of "overhead," is also slightly understood, we believe, as far as cost determination is concerned. We are anticipating with much interest the final report of the Depreciation Committee under Mr. McDonnell's chairmanship. Further simplification of lines and a sound, sane schedule of prices will logically follow in the wake of the work of these committees wherever the recommendations are intelligently applied.

The Cost Manual is not quite ready for distribution as yet, but the committee is perfecting plans for rendering a cost accounting service, including provision for installation, which will no doubt prompt the hearty cooperation of every manufacturer in the industry.

A Chemist Asks

## What Is a Caramel

BY SHERMAN WOODROW

THE other day I asked a candymaker friend of mine, "Will, you've made a lot of caramels in your time—tell me, just what is a caramel?"

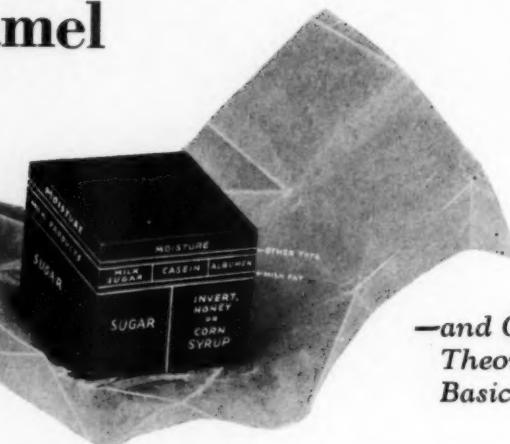
It would be difficult for me to forget the look of mingled astonishment and disgust with which he replied, "Do you mean to tell me that you've been working around candy factories for fifteen years without knowing what a caramel is? Aw, quit your kidding; you looked so blamed serious, for a minute I almost thought you meant it."

"But I am serious, Will—quite serious. Exactly what is there about a caramel which makes it so different from other types of candy?"

"Why, the fact that it's made from caramel paste, of course."

My friend's answer to this perfectly simple (?) question was no wider of the mark than the answers given to me by at least a dozen other candymakers to whom I have put the same question. As a matter of fact, although I am a chemist and have spent quite a lot of time around candy factories studying the problem from both a practical and scientific viewpoint, I am none too sure that I know the answer to that question myself.

But if there is any one point which my contacts on the subject have definitely established, it is that the average candymaker, entirely irrespective of what he may or may not know about the mechanics of putting the batch together, lacks even the remotest conception of the actual chemical or physical structure of that important product which he chooses to call caramel.



—and Offers a Plausible Theory Regarding Its Basic Structure

### Safety in Fixed Formulas

If he is a really good candymaker he most likely knows that certain fixed formulas can be more or less depended upon to produce certain results. But by the same token he will also realize that if he deviates from his standard, tried-and-tested formula in so much as one important particular (such as changing the source from which his milk solids are derived), he can no longer predict the result with any degree of confidence. So far as the practical fraternity is concerned, caramel is pretty much a Rule of Thumb product, and there is a great deal of work ahead of us if we are ever going to succeed in putting it on a scientific basis along with such products as fondant, marshmallow, and hard candy.

The general average of caramel quality as it is encountered in the retail markets (and I refer particularly to undipped caramels, which must stand the brunt of time and adverse weather conditions without any insulating coat of chocolate), is certainly nothing much to brag about. That the difficulties in manufacturing wrapped caramels of satisfactory stand-up quality are fairly universal is mutely attested by the scarcity of straight caramel numbers on sale in the local markets.

Elsewhere in these pages the superintendent of the M. C. Candy Clinic states that out of every five candy stores which he visited in quest of samples, three were without a caramel package of any description. He was not able to find what he considers a really good wrapped caramel outside of one or two of the better chain stores mak-

ing a specialty of them. Nevertheless, most of us probably realize from personal experience that "full cream" wrapped caramels in various flavors can be made quite popular.

It was my experiences in this direction which started me on this investigation to find out what is the matter with our caramels. I wanted to find out, possibly as a prelude to a more extensive research on my own part, just how much the average candymaker already knows about caramels, and just what it would be desirable for him to know in order to restore to the caramel some semblance of its lost glory.

### A Confusing Dual Role

TO BEGIN with, the word "caramel" has two distinct meanings—first, burnt sugar (incidentally, the world's chief source of brown color for food products); and second, that particular type of confection which is the subject of this paper. This double meaning has been the unfortunate cause of much confusion in the popular mind, the tendency being to associate caramels with burnt or "caramelized" sugar.

Just what comprises a caramel? The candy industry gives the name to a confection which owes its chief characteristics to the caramelization of some milk product used in its manufacture, and only partly to the cane sugar which cannot help but burn with the milk.

Thus the predominating flavor of the caramel is that of slightly burned milk, and not sugar, as is commonly supposed. This flavor is in practice usually modified by the

## THE MANUFACTURING CONFECTIONER

addition of other flavors such as vanilla, chocolate, strawberry, coffee, and even licorice and other exotic flavors.

The richness of the milk flavor depends both upon the amount of milk butterfat which the piece contains and upon the source from which it is obtained. Fresh sweet cream is generally recognized to be the best source available, although unfortunately so high in price as to encourage the employment of cheaper sources in which this butterfat is more readily handled and stored. Consequently, where fresh cream is not available, or its use restricted by economic considerations, creamery butter and powdered cream are employed with varying degrees of success.

So much for richness of flavor. However, a large part of the caramel flavor is contributed by milk solids other than fat, and the final result is influenced as much by the source from which these are obtained as by the source of the enrichening fat. In practice these are derived from fresh milk, condensed milks of various kinds, powdered whole milks, and the popular intermediate product—caramel paste.

### What Makes Caramels Stand Up?

**W**HETHER the caramel is to be dipped; sold uncoated, cut and wrapped; or used as a coating for some other type of center, it must possess one important property. It must stand up. It must retain over extended periods the shape and form given to it at the time it was made, and not collapse or sag when it is exposed to normal weather conditions. Since this is the property which appears to perplex candy-makers most, I frankly hope that this exposition of my own theories on the subject will start a discussion which will bring out something of value to research, or at least lead to a better understanding of this important characteristic of the caramel.

Suppose we examine the composition of the caramel, and by process of elimination try to determine the source from which this peculiar hold-up property might be derived. Caramel is made up of milk products, sugars, corn syrup, fats and flavoring materials. We may disregard flavoring materials at the outset, as the amounts in which they are present are too small to have any bearing on the situation one way or the other.

Sugar and its break-down product, invert sugar, cannot retain the

amount of moisture which is present in the average caramel (10 to 12%), and hold any given form alone. You will confirm this in your own mind when you remember how frequently you have seen caramels which contained a generous sufficiency of these ingredients commence to sag soon after they were made.

Now as to corn syrup. Might it not be its colloidal constituent *dextrin* which enables caramels to stand up? There might be a genuine temptation to ascribe that property to this ingredient were it not for the fact that excellent caramels can be made without the use of any corn syrup whatever. The dextrin may assist in imparting "body" to the mass but it is obviously not the ingredient which makes it stand up.

If we use a hard fat such as hydrogenated peanut stearine or a high-melting cocoanut butter, it is possible to produce a caramel which will stand up successfully under fairly severe weather conditions. This is one way out of the difficulty, although where substantial amounts of these fats are used it is likely to be at the expense of palatability. But our original problem is still unsolved inasmuch as excellent stand-

up properties can be imparted to caramels whose principal ingredients are milk products and sugar.

Thus the process of elimination ultimately brings us to a closer inspection of the milk solids as the source of the unsuspected ingredient which is so vital to the caramel's structure. Of the many useful components of whole milk, two give promise of being able to furnish the necessary backbone to this confection. The first is albumen, and the second, casein.

But milk albumen is only present in very small amounts and is coagulated and thus rendered ineffectual long before the temperature of caramelization is reached. And so, although like the dextrin of corn syrup, it may give "body," it cannot have any great influence upon the cohesion of the caramel in its finished form.

Only the casein remains, and it is apparently this little considered jelling agent (at least so far as the confectionery industry is concerned) which performs the all-important job of holding the caramel together.

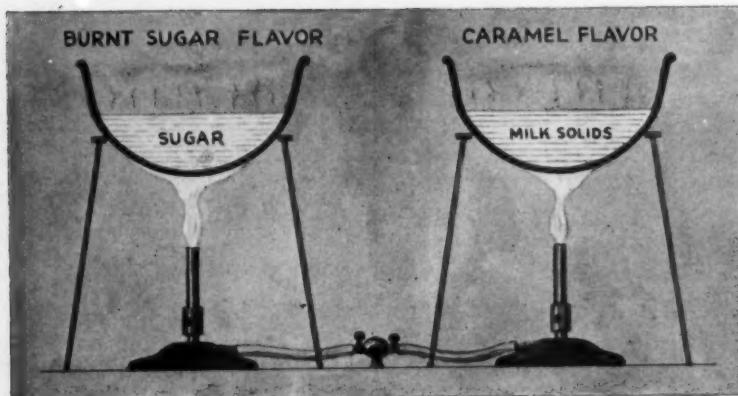
### Caramel as a Casein-gel

**C**ASEIN is perhaps the most interesting of the protein colloids.



"If he deviates from the tried and tested formula in any important particular, he can no longer predict the result with any degree of confidence."

## WHAT IS A CARAMEL?



If you would satisfy yourself whether it is the caramelizing of sugar or of milk solids which gives caramel its characteristic flavor, make these simple tests (1) using all sugars (2) unsweetened milks.

Volumes have been written about it, chiefly about its functions in cheese-making, and its many technical applications all the way from paper sizing to button manufacture. But about its usefulness in candy, the technical literature is strangely silent.

While it is thought to be the calcium salt of a complicated protein acid, it is present in milk in colloidal solution, being the emulsifying agent which holds the milk fat in its normal state of suspension. Casein can be readily precipitated from this colloidal condition by the action of acids (as when milk sours and a curd is formed), and also by the action of an enzyme which is present in rennet.

The action of heat alone does not coagulate casein (as it does albumen) in cooking the milk product to produce a caramel, the casein probably remaining in its original colloidal state. Now when colloidal solutions are sufficiently concentrated and then cooled (a condition analogous to producing a gum with starch), the colloid tends to form a solid jelly holding in suspension an appreciable amount of water.

We can therefore picture a caramel as a casein jelly, thickened by the addition of sugars, dextrin, etc., and holding in an emulsified state, milk fat and any other fat which may be present. To the casein must be ascribed a double function—first, that of jelling agent for the entire mass, and second, emulsifying agent or protective colloid for the contained fats.

Looking at the problem from this angle, it would seem that the property of casein which we might call its "jelly strength" determines the

value of this ingredient in holding up the structure of the caramel.

(The term "casein value" is here used to denote the ability of a milk product to furnish casein in suitable condition for caramel work. It is dependent not only upon the amount of casein which the milk product contains but also upon the form in which it is present.)

Everyone is familiar with the fact that gelatine solutions of the same concentration may have vastly different jelly strengths. The same is undoubtedly true of casein. Not only do the caseins of different milks vary in chemical composition (due to changes or differences in cattle feed, season of the year, condition of lactation, etc.), but in all likelihood these caseins vary also in physical properties just as do gelatines derived from different sources.

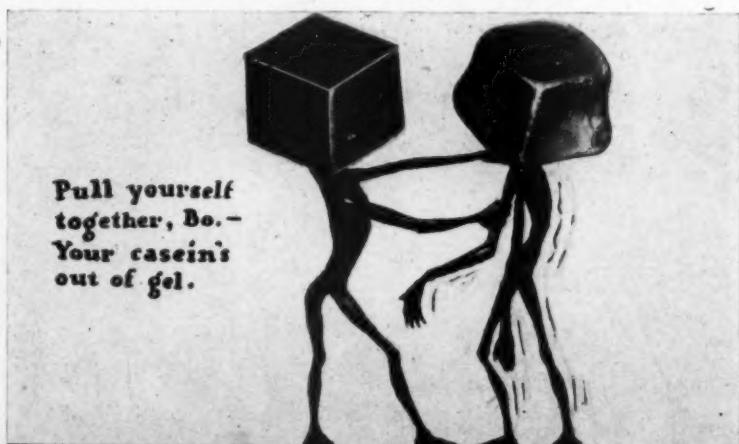
In the opinion of experienced candymakers, fresh, unsweetened,

whole condensed milk imparts the highest stand-up quality of any milk product. It is considered far superior to sweetened condensed of the usual 8% standard, and also to powdered milks, irrespective of the process by which they are made. Why this preference for fresh unsweetened condensed? Probably because in this particular milk product the casein remains closest to its original colloidal state.

A fairly safe rule for the caramel maker to follow would be to use only those milk products which have been made directly from whole, fresh milk of table quality. It is particularly important, where the product is to be the sole source of the jelling property, and not employed merely as additional milk filler, to see that the proportions of the various milk constituents correspond to the proportions in which these constituents occur in normal whole milk.

### Why Unsweetened Condensed?

THE USUAL barrelled variety of sweetened condensed milk need not necessarily lack the requisite jelling properties, but it frequently does. Like the powdered milks, it has come to be regarded as an unprofitable by-product of the milk industry, to be considered only as a means of getting rid of supplies which are in excess of current demands from the fluid milk trade. Consequently, if there is milk that is a little bit old, high in acidity or impoverished in fat, it usually finds its way into the bulk condensed and powdered markets. Homogenizing, standardizing and neutralizing are resorted to to bring up the quality of the finished product, and these



We may now imagine a caramel with a perfect "stand-up," saying to its hapless brother of the kettle: "Pull yourself together, Bo, your casein's out of gel!"

## THE MANUFACTURING CONFECTIONER

practices succeed very well up to the point where they are expected to furnish the main source of casein value for caramel manufacture.

Considerable evidence has already been adduced that the jellying properties of casein are greatly altered when subjected to great pressure, as in homogenizing, and even in high speed centrifuging, which is the method commonly employed for skimming. Competition in bulk condensed milk is exceedingly keen, and since the normal concentrating of average test fluid milk would produce a condensed milk with a butterfat materially higher than 8%, the effect of the government standard for whole sweetened condensed milk has been to encourage the partial skimming of the milk which is used for this purpose. Hence the significance of this reference to high speed centrifuging as the customary method of skimming.

Fresh, unsweetened whole condensed milk, on the other hand, is a perishable product in which there is not the same temptation to introduce substandard stocks. It contains, as a usual thing, the full 9.5 to 10% butterfat characteristic of a genuine whole milk product. Its casein or "jellying" agent has not been thrown "out of kilter" by the skimming to which a majority of the sweetened condensed milks are subjected nor, as in the case of dried milks, has it been deprived of nearly all its moisture.

### On the Track of "Stand-up" Control

DURING recent years several products have appeared on the market which consist of dry colloidal mixtures of casein with vegetable fats such as cocoanut, cottonseed, etc. Certain of these compounds have been shown to possess remarkable properties for imparting jelly strength to caramels, largely because of the colloidal condition of the casein. They accomplish their task so well, in fact, that great care must be exercised to avoid using too much. Using more than is actually necessary has the effect of strengthening the structure to the point of toughness.

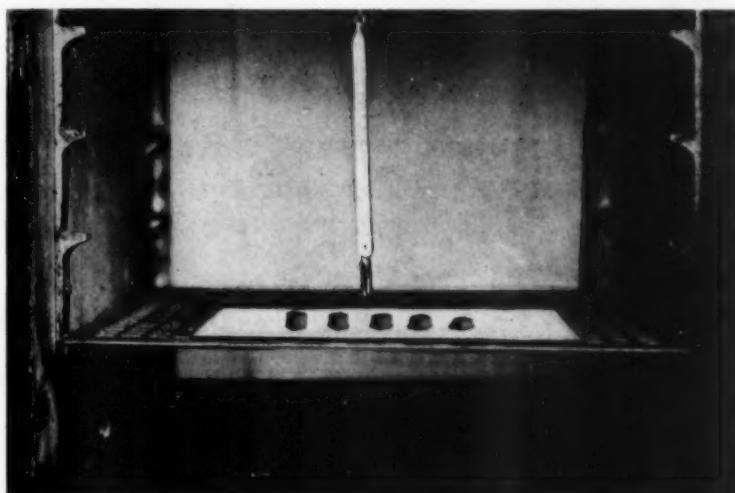
That such products as these have not made greater headway can generally be attributed to the apathy and scientific indifference of the confectionery industry. The development of a colloidal solution of casein in cocoanut butter may

eventually prove to be as much of a step in the history of caramel as the application of gelatine was to marshmallow. As a scientific accomplishment, it has hardly met with the consideration which it deserves.

There is room for a great deal of research in this field to determine the most practical and economical methods of preserving and utilizing the jellying power of casein. Caramels should be taken out of the realm of guesswork. Their stand-

The same considerations which govern the use of fats in coatings control their use in caramels also. We need a fat with a melting point high enough to resist ordinary summer temperatures but lower than body temperature.

As nearly as possible, the softening point of this fat should coincide with its melting point, signifying its comparative freedom from objectionable low-melting oils. Fats of this description are commercially available at fairly low cost and go a



The electric oven is the chemist's chief reliance in testing caramels for stand-up quality.

ing up properties should be further investigated and controlled. Possibly the finished product might be made to contain more moisture and become even more palatable thereby. It is well worth working on.

### Fat's Secondary Function

WE COME finally to the secondary function of fat in caramels. Fat not only contributes to the richness of the caramel flavor but performs the function of a lubricant as well. It is what enables us to chew a caramel without having it stick to the teeth in the customary exasperating manner. It also makes it easier to cut caramel by machine. To be suitable for use in caramels this fat must possess the proper melting point. Just any fat will not do.

If its melting point is too low it will separate from the caramel on a hot day. If it is too high, the fat will refuse to melt in the mouth readily and remain as a pasty, unpalatable residue after the main body of the caramel has dissolved.

long way toward solving the fat problem in caramels.

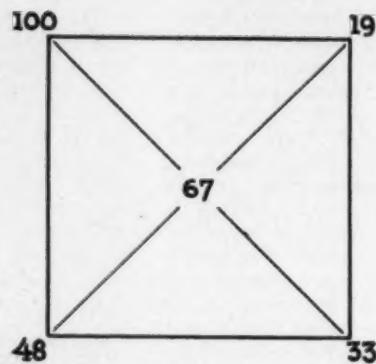
The kind of sugar used in caramel work is chiefly determined by cost. For very high-priced caramels, honey or invert may be employed in combination with cane. For medium and low-priced caramels, corn syrup is generally used. It would be difficult to produce a satisfactory caramel using cane sugar alone, inasmuch as the protective action of the casein is insufficient to prevent graining. Consequently it is necessary to have some other agent present, such as an invert or the dextrin in corn syrup, to perform this important function.

I have enjoyed writing this little exposition of my own pet theories with respect to caramels, and if I have offended anybody else's favorites in so doing, I am sure *The Manufacturing Confectioner* will be glad to give them the floor so that they may bring these ideas into the open for the general benefit of the industry.

## Shall We Use



or



in standardizing our Caramel and Coating Batches?

*Prof. B. I. Masurovsky, eminent dairy specialist, describes the time-saving features of*

## THE LIGATURE METHOD for standardizing milk coatings, caramels, etc.

(Continued from the June Issue)

In the June issue methods were given for computing a batch of sweet chocolate coating and also a simple formula for an ordinary milk chocolate coating. At this time we will present the application of the ligature method to standardizing milk chocolate formulas of a more difficult nature. Precisely the same principle may be applied to standardizing either the fat, sugars or milk solids content of complicated caramel formulas.

### Problem I

Prepare a milk chocolate coating of the following composition: Sugar, 40%; total fat, 40%; other solids, 20%.

GIVEN.—Butter oil testing 100% butter fat; chocolate liquor containing 50% fat; cocoa butter testing 100% fat; skim milk powder, and sugar.

### SOLUTION

Step I.—Find the quantity of sugar to be used per 100 lbs. of milk chocolate coating.

According to the composition given above the percentage of sugar is 40; therefore, the amount of sugar used per 100 lbs. is 40 lbs.

Step II.—Assuming that 10 lbs. of milk solids-not-fat are to be derived from 10 lbs. of skim milk powder, calculate the balance

of the batch by weight.

$$100 - (40 \text{ plus } 10) = 50 \text{ lbs.}$$

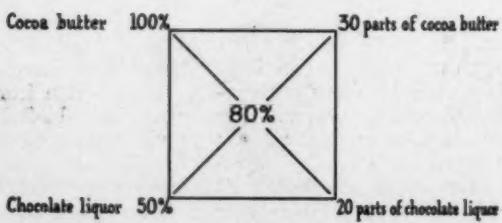
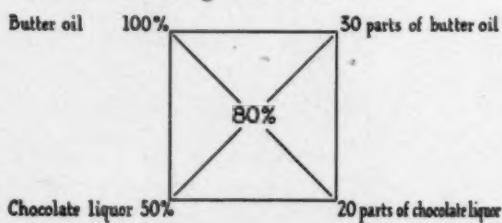
Step III.—Figure out the percentage of fat in the remaining 50 lbs. of ingredients if the amount of fat therein is 40 lbs.

$$40 \times 100$$

$$\frac{50}{\text{ }} = 80\% \text{ fat.}$$

Step IV.—Estimate the relation of chocolate liquor to cocoa butter and to butter oil.

Use two rectangles as follows:



## THE MANUFACTURING CONFECTIONER

In other words, for every 20 plus 20, or 40 parts of chocolate liquor, take 30 parts of butter oil and 30 parts of cocoa butter.

*Step V.—Determine the actual weight of each of the ingredients which make up the 50 lbs. balance of mixture:*

- (a)  $40 + 30 + 30 = 100$  parts.
- (b)  $50 \text{ lbs.} \div 100 \text{ parts} = 0.5 \text{ lbs. per part.}$
- (c) Chocolate liquor  $40 \times 0.5 = 20 \text{ lbs.}$
- (d) Butter oil  $30 \times 0.5 = 15 \text{ lbs.}$
- (e) Cocoa Butter  $30 \times 0.5 = 15 \text{ lbs.}$

**CHECK—Tabulate as follows:**

	Sugar lbs.	Fat lbs.	Other Solids lbs.
40 lbs. of sugar.....	40	..	..
15 lbs. of butter oil.....	..	15	..
15 lbs. of cocoa butter.....	..	15	..
10 lbs. of skim milk powder.....	..	..	10
20 lbs. of chocolate liquor.....	..	10	10
<b>100 lbs. of milk chocolate...</b>	<b>40</b>	<b>40</b>	<b>20</b>

**NOTE.**—If it is required to manufacture 600 lbs. of the given chocolate coating simply multiply the amounts of the respective ingredients by 6, etc.

### Problem II

*Calculate the formula for a milk chocolate coating which will contain: Sugar, 40%; total fat, 40%; other solids, 20%.*

**GIVEN**—Sugar; whole milk powder testing 27% butter fat; chocolate liquor testing 48% fat; cocoa butter, 100% fat.

### SOLUTION

*Step I.—How much sugar is required per 100-pound batch?*

Since the composition calls for 40% sugar, the amount of sugar per 100 lbs. is 40 lbs.

*Step II.—Compute the remaining part of a 100-pound batch:*

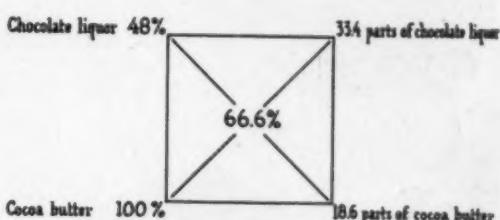
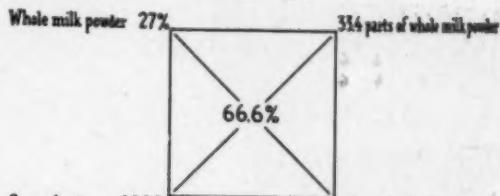
$$100 - 40 = 60 \text{ lbs.}$$

*Step III.—What is the percentage of fat in the remaining 60 lbs. of ingredients if they contain 40 lbs. of fat?*

$$\frac{40 \times 100}{60} = 66.6\% \text{ fat.}$$

*Step IV.—Standardize your whole milk powder with chocolate liquor and cocoa butter in accordance with the ligature method.*

Draw two rectangles in the following manner:



Which is to say, that for every 33.4 parts of whole milk powder you take 39.6 plus 18.6, or 58.2 parts of butter (cocoa) and 33.4 parts of chocolate liquor.

*Step V.—Find the relation between whole milk powder, cocoa butter and chocolate liquor and their amounts per 100 lbs. of milk chocolate coating:*

A.	Whole milk powder .....	33.4 parts
	Cocoa butter .....	58.2 parts
	Chocolate liquor .....	33.4 parts

Total ..... 125.0 parts  
which weigh sixty pounds (60), i. e., each part weighs  
 $60 \div 125 = 0.48 \text{ lbs.}$

B.	Whole milk powder ..	$33.4 \times 0.48 = 16,032 \text{ lbs.}$
	Cocoa butter .....	$58.2 \times 0.48 = 27,936 \text{ lbs.}$
	Chocolate liquor .....	$33.4 \times 0.48 = 16,032 \text{ lbs.}$

**CHECK—Tabulate as follows:**

	Sugar lbs.	Fat lbs.	Other Solids lbs.
40 lbs. sugar.....	40	..	..
16 lbs. whole milk powder.....	..	4.3	11.7
28 lbs. cocoa butter.....	..	28.0	..
16 lbs. chocolate liquor.....	..	7.7	8.3
<b>100 lbs. milk chocolate.....</b>	<b>40</b>	<b>40.0</b>	<b>20.0</b>

It is very important to arrange the known percentages of the given materials on the diagrammatic rectangle in such a way that one of the percentages is greater than the desired result which you have placed in the center of the rectangle, while the other known percentage is smaller than the percentage placed in the center of the rectangle.

In this series by Dr. Masurovsky, the juggling of many ingredients is made easy by the application of a simple arithmetical principle—



Cream Powder



Skim Milk Powder



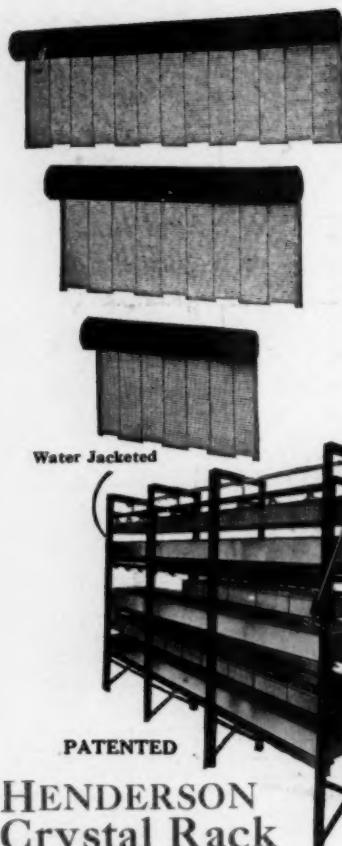
Chocolate Liquor



Cocoa Butter



Cane Sugar



## GREER Wire Belt

Greer Wire Belt is made in our own plant out of the very best wire. Standard belts in 16-in., 24-in., and 32-in. widths, fit any Coater or Enrober.

Any length of belt furnished as requested.

Wire belts are expensive. Why not buy the best?

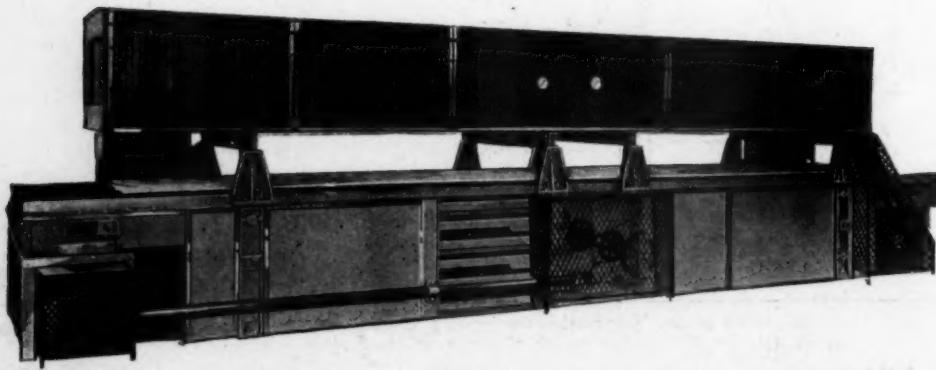


## HENDERSON Crystal Rack

The Henderson Crystal Rack is the solution to the Crystallizing problem.

Produces 600 pounds of high grade goods per batch. Two batches per day.

Most compact, sanitary, economical, and labor saving method of making crystallized work.



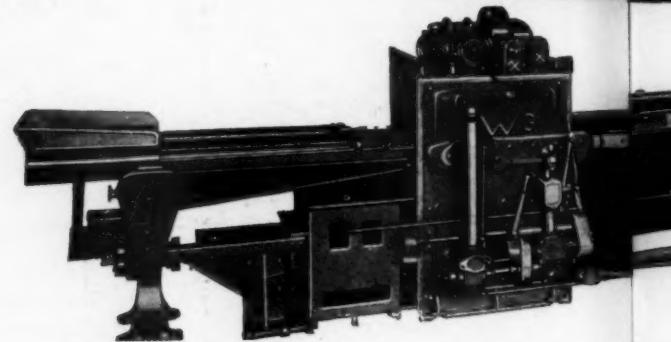
PATENTED

For  
Bars and  
Ten Pound  
Cakes

## GREER Chocolate Cooling Machine

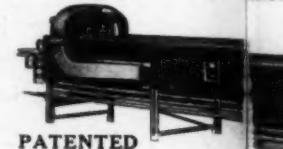
The Greer Chocolate Cooling Machine is recognized as the best and most modern means of cooling any solid moulded chocolate. The standard machine has a capacity of 2500 pounds per hour and yet occupies a space only 5½ feet x 28 feet.

Moulds of any size can be used in this machine. Warming tunnels are supplied to warm and return empty moulds to moulding room.



## GREER Automatic Plaque T

Where floor space is at a premium the Greer Automatic Plaque T



PATENTED

## The Greer

The Greer is the ideal means of overcoming the awkward air uniform results. Patent



## GREER Quick Cool

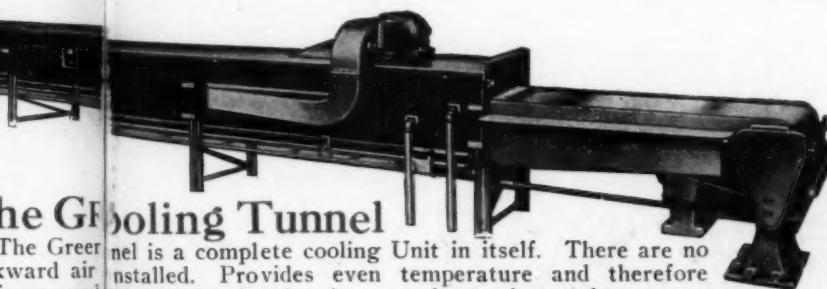
The surprising is its cooling capacity due to the water. It uses water which are obtainable on the market.

J. W. C.  
Manufacturers of  
119-137 Wind



### Greer Plaque Transfer Cooling Machine

In the Greer Plaque Transfer Cooling Goods are fed thru Coating Tunnel 90 ft. long.



### Greer Cooling Tunnel

The Greer Tunnel is a complete cooling Unit in itself. There are no fans installed. Provides even temperature and therefore thoroughly insulated so can be used even in a warm room. Patented.



**GREER Quic Candy Slab**  
surprising cooling capacity due to the unusually fast method of circulating and draining water. It uses a tannable on slab.

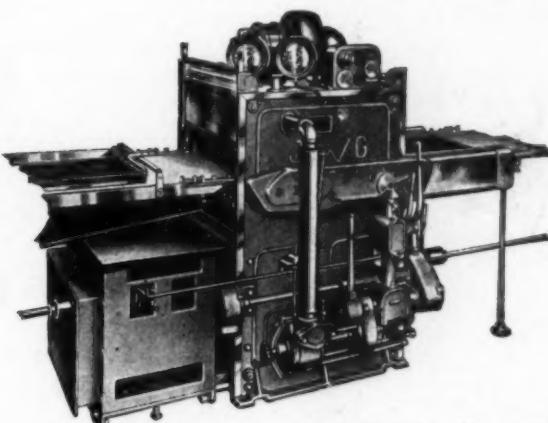
**W. C. COMPANY**  
Manufacturers of Machinery That Pays Dividends  
37 Winsor Street, CAMBRIDGE, MASS.

### GREER Perfected Chocolate Melting Kettle

The Greer Perfected Melting Kettles are the latest, most sanitary and efficient type of Melter. The use of Greer Kettles insures a uniform coating.

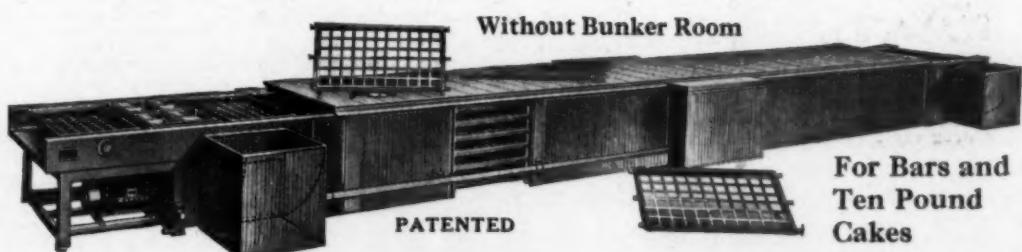
Outside surface is polished. No paint to crack off. Removable bearings throughout.

Made in 150, 300, 500, 1000 and 2000 pound sizes.



### GREER Coater

The Greer Coater produces a remarkable amount of coated goods, and yet maintains the highest of quality. Simplicity has been achieved at last in a coating machine. In operation it is practically noiseless—a noiseless type of blower and drive being used. Variable Speed Transmission—NOT STEP GEARS—provides any desired speed.



PATENTED

For Bars and  
Ten Pound  
Cakes

### GREER Chocolate Cooling Machine

This machine is the same as that illustrated on opposite page except for Bunker Room. With this type cold air is supplied from coils located in some other part of the plant.



The Candy Clinic is conducted by one of the most experienced superintendents in the candy industry. Each month he picks up at random a number of samples of representative candies. This month it is fudge and caramels; next month it will be hard candies. Each sample represents a bona-fide purchase in the retail market, so that any one of these samples may be yours.

This series of frank criticisms on well-known, branded candies, together with the practical "prescriptions" of our clinical expert, are exclusive features of the M. C.

## Fudges and Caramels

Following is my confidential report on 15 samples of caramels and fudges purchased at retail in Boston, Chicago and New York City.

### Coated Caramels

#### SAMPLE BB—9

(From Sherman Hotel, Chicago)

**How sold:** 2½ ozs.—10c

**Container:** Folding box

**Coating:** Milk chocolate

Flavor of coating—good

Color of coating—good

Dipping—good

**Caramel:** Flavor—vanilla; good  
Texture—excellent

**Remarks:** Outstanding in its class.  
This is a first rate package of  
dipped caramels and should enjoy  
a good sale.

#### SAMPLE OD—9

**How sold:** 3 ozs.—10c

**Container:** Glassine bag

**Coating:** Milk chocolate

Flavor of coating—very cheap  
tasting

Color of coating—poor

Dipping—carefully done

**Caramel:** Flavor—vanilla; tasted as  
though made from an inferior quality  
of caramel paste.  
Texture—good

**Remarks:** This candy was on sale in  
a drug chain usually looked to for

a better quality of product. It was  
of poor quality all around and the  
seller need not be surprised if no one  
is tempted to buy a second  
bag.

#### SAMPLE BR—9 (Chicago)

**How sold:** 1 lb. box—70c

**Container:** Folding box

**Coating:** Milk chocolate

Flavor of coating—very poor, as  
though coating had been scorched

Color of coating—fair; color too

light

Dipping—fair

**Caramel:** Flavor—vanilla; good  
Color—good

Texture—good

**Remarks:** Suggest that a better grade  
of milk coating be purchased, as  
the present coating spoils an otherwise  
good package of caramels.

#### SAMPLE BR<sup>2</sup>—9 (Chicago)

**How sold:** 1 lb. box—70c

**Container:** Folding box

**Coating:** Iced coating—very hard and  
dry

**Caramel:** Flavor—very poor  
Color—very dark; looked as though

scrap were used

Texture—hard to chew; stuck to

teeth

**Remarks:** A poor piece of candy to  
sell at 70c lb.

#### SAMPLE LC—9 (New York)

**How sold:** 5c package

**Container:** Laid on chipboard bottom  
and wrapped in cellophane; no box

**Wrappers:** Very heavy waxed, but  
not of a good white color

**Size:** Approximately 50 caramels to  
the pound

**Flavors:** Assorted

**Taste:** Chocolate—burnt taste; va-  
nilla—no flavor at all. The car-  
melm paste used is of fair quality  
for this class of goods

**Texture:** Fair

**Remarks:** Should general experience  
prove that wrapped caramels will  
stand up satisfactorily when pack-  
aged in this manner, we may ex-  
pect to see many more of these  
"open face" caramel packages on  
the market.

#### SAMPLE R—9 (New York)

**How sold:** 5c package

**Container:** Same as LC—9; chipboard  
bottom and cellophane wrap

**Wrappers:** Very heavy waxed; color  
of paper, fair

**Size:** Approx. 45 caramels per lb.

**Flavors:** Assorted

**Taste:** Fair; all had strong, character-  
istic caramel paste taste

**Texture:** Vanilla grained; other va-  
rieties of good texture

#### SAMPLE K—9 (New York)

**How sold:** In bulk—60c lb.

**Wrappers:** Light waxed

**Size:** About 45 caramels per lb.

**Flavors:** Assorted

**Taste:** Fair. Strawberry very strong  
and of poor quality

**Texture:** Very good

#### SAMPLE BR<sup>3</sup>—9 (Chicago)

**How sold:** 1 lb.—29c

**Color:** Very dark

### Uncoated Caramels

#### SAMPLE BFP—9 (New York)

**How sold:** 15c package

**Container:** Plain chipboard box; cheap  
looking; no liner

**Wrappers:** Heavy waxed

**Size:** Approximately 52 caramels to  
the pound

**Flavors:** All vanilla

**Color:** Good

**Taste:** Poor, as if made from cheap  
grade of caramel paste, although  
more likely made from off-grade  
condensed milk

**Texture:** Very tough

**Remarks:** By reason of its low price,  
this package enjoys a wide sale in  
spite of its mediocre quality.

## THE MANUFACTURING CONFECTIONER

**Flavor:** Plain vanilla

**Taste:** Fair; had strong, characteristic taste of cheap caramel paste

**Texture:** Fair; stuck to the teeth when eaten

### **SAMPLE BR-9 (Chicago)**

**How sold:** 1 lb.—29c

**Variety:** Assorted nougat caramels

**Container:** Folding box

**Caramel portion:** Poor taste; cheapest kind of flavor used

**Nougat portion:** Sour taste; contained raisins

**Texture of piece:** Fair, but stuck to teeth

### **SAMPLE BR-9 (Chicago)**

**How sold:** 1 lb.—29c

**Variety:** Rolled cocoanut caramel nougat

**Caramel portion:** Color—good  
Flavor—very bad  
Texture—very tough

**Nougat portion:** Flavor—slightly sour  
Texture—very tough

**Remarks:** This type of candy does the industry no end of harm. It is not fit to eat at any price.

OFFICE HOURS  
9:00 to 5:30  
ANOTHER TIME  
BY APPOINTMENT

**THE CANDY CLINIC**  
10 W. 45th Street  
NEW YORK CITY

**R**

Select milk products with care; Use 8 lbs. of hard butter to the 100 to prevent dental mishaps; and Omit scrap.

*H.W.D.*  
SUPERINTENDENT

## What's the Matter With Wrapped Caramels?

**W**RAPPED caramels seem to have become what a "back number" in the candy business. Three out of every five of the stores which I visited in search of samples did not carry any. They explained that they have few or no calls for wrapped caramels and, consequently, have never taken the trouble to stock them.

One of the reasons for this situation is very plain to see. All of the uncoated caramels examined were of poor to mediocre quality, certainly nothing for a high class retail store to

sell. Yet some of the better wholesale houses might work up a nice business with wrapped caramels in quarter- and half-pound boxes, provided the caramels are made right and not stinted on the raw materials. A good caramel can easily be made to sell for 70c or 80c per pound. But, like fudge, it has become a dumping ground for stale milk products and the factory scrap, with the result that reconverting the disillusioned customers is likely to be a long, uphill fight.

## Fudges

### **SAMPLE SP-9 (Chicago)**

**Variety:** Chocolate nut fudge

**Color:** Good

**Nuts:** Filberts, almonds and peanuts. The nuts were mostly soft, consequently, did not taste good

**Flavor:** Very poor. Very little chocolate used (if any). Tasted as though the chief flavoring ingredient was a cheap, Dutch process cocoa

**Texture:** Tough and dry

**Remarks:** This fudge was undoubtedly made of "scrap." It would not rate as even a "fair" quality of retail fudge.

### **SAMPLE XX-9 (Boston)**

**Variety:** Chocolate pecan fudge

**Color:** Good chocolate color

**Nuts:** Of good quality, but pieces only topped, none mixed through fudge

**Flavor:** Burnt taste. No chocolate character whatever. No doubt a cheap cocoa powder was used to give chocolate color

**Texture:** Fair: semi-soft, grained fudge

**Remarks:** Not up to the customary retail standards of quality. In fact, apart from texture, this fudge is of about the same quality as Sample SP-9.

### **SAMPLE WO-9 (Chicago)**

**Variety:** Chocolate fudge

**Color:** Too light; did not look like chocolate fudge

**Nuts:** None

**Flavor:** Very poor; no flavor of chocolate, but possessed a distinct caramel paste character

**Textures:** Characteristic of a grained, old-fashioned fudge; fairly soft and a trifle gummy

### **SAMPLE KR-9 (Chicago)**

**Variety:** Chocolate fudge

**Nuts:** None

**Flavor:** Tasted as though a Dutch cocoa of poor quality were used; also had a strong caramel paste character

**Texture:** Fairly soft, but gummy

## What About Fudge?

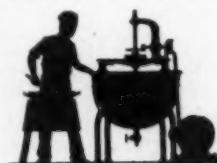
**A**LL of the fudge samples were purchased in chain stores, several of them coming from stores of the 5c and 10c species.

It is evident from the prices at which most goods of this character are sold that we cannot reasonably expect too much of this class of candy. The general practice seems to be to "cut the pattern to fit the cloth," and there is no doubt in my mind but that the houses making this fudge are quite capable of turning out a superior product if they thought the price warranted.

In any event, fudge, as it is at pres-

ent constituted has no place in the general wholesale line. It is still too highly perishable to be handled with any degree of safety and must command a fairly good price, say 60c to 70c lb., before a satisfactory piece can be turned out. This class of candy is the rightful province of the retail trade and can be handled by small retail stores with considerable success.

On the other hand, most of the chains require fudge to round out their candy lines, consequently, the wholesaler has to make a certain amount of it, regardless of quality or how he is fitted to turn it out.



*The Clinic Superintendent  
gives a few pointers on*

## **The Art of Making Caramels**

THE samples of wrapped caramels which I had occasion to examine for the M. C. Clinic were not good caramels. The truth is that a good caramel cannot be expected at the prices at which these goods were sold. Outside of the product of one large dairy company, there is hardly anything in the way of a wholesale package of wrapped caramels on sale in the retail stores. There are a few 5¢ sellers, of course, but I mean packages containing  $\frac{1}{4}$  lb. or over. There is a good field for a  $\frac{1}{4}$  or  $\frac{1}{2}$  lb. package of properly made caramels, and I am surprised that some of the better wholesale houses have not gone into it.

### **Code-Dating and Turnover**

Where caramels are turned out for the wholesale trade, care should be taken to see that the goods are turned over at least once a month in summer and every two months during the winter. Code-dating of packages can be employed to great advantage by insuring a reasonable freshness of the product upon delivery to the consumer.

I have frequently been asked, "What is the proper proportion of invert sugar to cane sugar or corn syrup to cane sugar to use in making wrapped caramels?" The answer is equal proportions of each. Personally, I prefer to use corn syrup and sugar and no invert sugar in making wrapped caramels. Where the proper amounts of milk solids are also used, corn syrup and sugar will make a caramel that will stand up and not grain or "fudge" on the surface as quickly as though invert were used. I have also found that the use of a small amount of pure beeswax will materially aid in preventing this surface grain or "fudging."

(Use 1 lb. pure beeswax to every 125 lbs. of stock; put in the batch before it boils.)

Corn syrup will not toughen a caramel, provided the correct amounts of fats and milk solids are used. In cooking caramels of this kind, the cooking should not be stopped at any time until the batch is finished. Stopping the boil toughens the caramel. Except where you are using a product that is already partly manufactured into caramel, such as caramel paste, the complete batch should be put in the kettle at the start and the boil continued without interruption to the finish. Adding cream or other ingredients from time to time while the batch is cooking has a tendency to "break the grain," causing the caramels to become dry or

show "fudge" on the surface within a short time.

### **A Word About Caramel Pastes**

Caramel paste being an intermediate, or semi-manufactured product, should not be introduced into the batch until it is about three-quarters finished. As you add it, be sure to keep the batch moving all the time.

The kettle should have a double beater with scrapers on the sides; the kettle should not be run too fast. As soon as the batch is cooked, remove it from the kettle, i. e., remove the entire batch, not just part of it at a time. If only part is removed, the balance of the batch is likely to become burned or scorched. The conditions of cooking, cooling and the stock rooms have much to do with the usual unexplained difficulties of graining and fudging on the surface.

The most popular base for this class of goods is caramel paste. It may be had in a wide range of qualities and at corresponding prices. It is poor economy to use a cheap one unless, of course, the price of finished article is the only consideration. Excellent grades are put out by several of the better suppliers and every care should be taken to select the one that is best adapted for the work.

Caramel paste should be ordered in reasonably small quantities to insure a turnover of at least once a month. Provided you have a suitable storage room for this class of material, it may be kept almost indefinitely, but it is well not to forget that this is a milk product and should be handled as such. After a barrel is opened in the cooking room, it should not be allowed to just "stand around." If it is not going to be used up immediately, return it to the Cool Room, where it belongs.

### **Six Hints for Better Caramels**

There are half a dozen things to keep in mind in turning out high grade caramels:

1. Use at least 8 lbs. of hard fat (such as 94° or 96° pressed cocoanut butter) to every 100 or 125 lbs. of material.
2. Use salt to bring out the flavor.
3. Dissolve flavors in water or milk; do not put them in the usual dry or extract form.
4. Be careful not to pan your caramels on a warm or hot slab, as this will cause them to grain on the bottom.
5. Have wrapping machine in a cool, dry room and wrap the caramels just as soon as possible after they are made.
6. In stocking caramels, it is best to use sheet steel pans.

*Yours for Better Caramels,*

L. W. D., Supt., Candy Clinic

## THE MANUFACTURING CONFECTIONER

### News Digest

**California**—Alamar Candy Kitchen has started business at 160 West Alamar, Santa Barbara, the personnel of the company being Miss Marie Wagner of Bakersfield and John Koehl of Los Angeles.

The John O. Gilbert Company of Jackson, Mich., have broken ground at Los Angeles for a \$200,000 factory for the manufacture of eighteen lines of chocolate package goods for distribution west of the Rocky Mountains and for trans-Pacific trade.

**Illinois**—E. & A. Opfer, Inc., Chicago, has purchased certain assets of the Walter J. Hirsch Company. The Peanut Butter department will be continued, but "the candy manufacturing department will probably be discontinued," says Mr. Opfer.

**Iowa**—W. J. Starr, senior partner of the Starr Ice Cream and Candy Company of Osage, has sold his active interest in the factory to Walter McCoy and Roger Sanders.

**Massachusetts**—Cream of Chocolate Company, Waltham, has applied for permission to build an addition to their present plant at the corner of Jackson and Central streets.

**Minnesota**—Louis J. Maschka, formerly field manager of the Curtiss Candy Company, has joined the Allen-Qualley Company, St. Paul, in a similar capacity.

**New York**—National Biscuit Co., New York City, is acquiring a controlling interest in the outstanding shares of Christie Brown & Co., Ltd., Toronto, Ont., Canada. There will be no change in management, directorate or personnel of the organization, C. E. Edmunds continuing as president.

**Pennsylvania**—Pennsylvania Confectioners' Association held its annual meeting at Galen Hall, Wernersville, with officers elected as follows: President, A. E. Sander, York; first vice-president, Dewitt P. Henry, Philadelphia; second vice-president, John F. Bachman, Mt. Joy; third vice-president, D. L. Clark, Pittsburgh; secretary-treasurer, Arthur D. Bacon, Harrisburg.

**Tennessee**—Lehmann Candy Company, 584 Hernando street, Memphis, filed petition in bankruptcy with liabilities listed at \$30,534.40 and assets of \$11,184.57.

**Tennessee**—Lovelace Candy Company, 127 Second avenue, N., Nashville, suffered a fire loss on June 29 amounting probably to \$25,000, which was partially covered by insurance. The entire machinery and equipment on the second floor of the plant was destroyed.

**Utah**—The formal opening of the new \$40,000 factory and offices of the Ostler Candy Co., 143 South State street, Salt Lake City, took place June 18.

### NEW INCORPORATIONS

**Illinois**—Hanley-Lewis Confectionery Co., Union Arcade building, Wright street, Champaign. Capital, \$25,000. Incorporators: J. Frank Hanley, Leo W. Burk, Frank H. Lewis.

**Michigan**—Hendrick Candy Co., 947 Wealthy street, S. E., Grand Rapids. Capitalization of \$5,000 with \$3,500 paid in. Incorporators: Charles A. Hendrick, president, 342 Paris avenue, S. E.; Florence Hendrick, vice-president; Elkins Halladay, secretary and treasurer, 155 Dale street, N. E.

**New York**—D & M Candy Corporation, Binghamton. Capital, \$20,000. Directors and subscribers: Clare W. Dunlap, 71 Cleveland avenue; Horace C. Millen, 189 Court street; Mack W. Terry, 697 Chenango street, Binghamton.

# Buying Etiquette for All Occasions

## How to be Popular, though a Buyer!

When the salesman with the cleaning compounds offers to demonstrate the purity of his products by eating a mouthful or so in your presence, it is in order to lend him your whisk-broom and inquire solicitously the name of his nearest living relative. If this fails to deter him from going through with his gastronomical feat, request him to write a note to his undertaker asking him to leave the place the way he found it.

Any salesman who loses three or more of your orders in succession is entitled to the suggestion that his firm make you a "house account." Since this will leave him free to take up other duties, he will, of course, be thankful for your consideration.

A good way to endear yourself to your broker is known as the triple-cross. Persuade him to confide in you the name of the party with whom he is working. If his principal won't allow you the whole commission, offer the order to the broker on condition that he split fifty-fifty with the house. He will be impressed by your desire to see him make a little money.

If the office boy requisitions a 50c chair pad to keep his new trousers from becoming shiny, point out to him that the same result may be achieved by standing up. Thrift can never be taught too early in life.

As salesmen send in their cards, don't offend them by your haste to get the ordeal over with. Wait half an hour or so before you call for them. Walking around all day is a very tiresome occupation and they should appreciate an opportunity to catch up with their sleep.

As their cards are brought in, instead of piling them up in the order in which they appeared, try giving them the "Dutch cut" or practice up on a couple of good poker shuffles. This provides an interesting diversion from chewing the end of one's lead pencil, besides being an excellent test of the salesmen's endurance. You will find that those who haven't got brains enough to leave will be much easier to get along with.

THE MANUFACTURING CONFECTIONER

ASK ME!

 *Each month the editor asks ten questions of practical and scientific interest to superintendents, purchasing agents, sales managers and general executives in candy plants throughout the country. Do you read these questions every month? The live wires do.* 

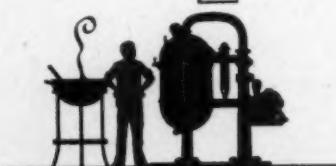


1. *What produces gloss on hard candy?*
2. *Which hard candy raw materials suffer most by exposure to direct sunlight?*
3. *How does the storage of jar hard candy in a fluctuating temperature hasten the admission of moist air through minute leaks in the seals?*
4. *Name three functions of grape products used in hard candy manufacture.*
5. *What is "color fudge" and how is it used in hard candy?*
6. *Should the amount of acid used in hard candy batches vary according to the amount of flavoring material or the size of the batch?*
7. *Is hard candy an amorphous form of sugar?*
8. *What is a "fixative" and what is its application in hard candy manufacture?*
9. *How many certified aniline colors are there? How many of them can you name?*
10. *How does corn syrup lengthen the shelf life of hard candy?*

Preserve this page and check your answers with the answers which appear in next month's issue. Each question scores 10 points. 70 is par. What's your score?

<input type="checkbox"/>	.....

TOTAL



## Answers to JUNE Questions

1. *What causes "caramel"?*

Ans. The slight scorching of milk solids used in its manufacture.

2. *Why does cream sour?*

Ans. Bacteria normally present in all milk products decompose the milk sugar with the formation of lactic acid.

3. *What is accomplished by the pulling of taffy?*

Ans. Small bubbles of air are incorporated in the mass, lightening the texture and making the taffy chew more easily.

4. *Why do some caramels break down more readily than others notwithstanding similarity in melting point?*

Ans. Breakdown is believed to be due to an improper casein-gel. This impairment of the jelly structure of the caramel may be due to the use of an inferior milk product or to lack of care in its selection or manufacture.

5. *Which classes of ingredient should be "standardized" in order to attain uniformity in the finished product?*

Ans. Total sugars; fats; and milk solids-less fat.

6. *What simple and effective means*

*have been discovered for keeping fudge soft?*

Ans. The use of invertase, or of some hygroscopic sugar such as malt sugar.

7. *What colloid is believed to perform a necessary and important function in caramel?*

Ans. Casein.

8. *What is the most economical source of milk solids for caramel work, flavor and texture of the finished product considered?*

Ans. Where available, fresh unsweetened whole condensed milk, 10 per cent.

9. *What is meant by "ligatures" as applied to the standardizing of caramel, coating and ice cream batches?*

Ans. The application of an old arithmetic principle of proportion to ascertaining the quantities of two or more (take for example) fat-containing materials required to be used in order to obtain a given percentage of the substance (in this instance, fat) in the final batch.

10. *What is the function of hard butters in caramel?*

Ans. To serve as a "lubricant," preventing the caramel from sticking to the teeth; and to retard the collapse or softening of the caramel at normal temperatures.

### INDOOR ADVERTISING COMPANY.

**NEVERMELT  
CARAMELS....**

TRY NEVERMELTS—  
THEY STICK TO THE LAST

*I say Ol'Deah, it's a bloomin'rage.*

**BLOOM'S CHOCOLATE  
BLOOM BAR**

F. B. BLOOM & CO.  
W. C. CO.

**PULVERS  
KNOCK-OUT  
DROPS**

Try Them Once and You'll  
Never Use Any Other

The PULVER COMPANY  
GLENDALE 2-1212

THE "FRANK" AD:—after the manner of current national advertising by manufacturers of ladies' underwear, breath deodorants, bath fixtures and soap.

# We Need the Jobber and the Jobber Needs Us—Let's Cooperate

Address delivered before the Pennsylvania  
Confectioners' Association, at Wernersville

BY WILLIAM E. JOHNSTON  
*W. E. Johnston & Co., Johnstown, Pennsylvania*

*Mr. Johnston first showed the necessity of the jobber in distributing the manufacturers' products, claiming that so long as there are small individual retailers the jobbers will be the medium through which they must be serviced.*

If perchance the jobber is compelled to fold up his tent, the retailer in most cases will cease to function efficiently, for the distance from the manufacturer to the small independent store cannot be negotiated in one jump." It was his belief that "manufacturers should not lose sight of the fact that the jobber is entitled to much of the credit for the successful introduction of their product. Remove the jobber from the picture and what will happen to the manufacturer with limited facilities to obtain a larger distribution. How, for instance, would a small manufacturer with limited capital market a worthy product on a wide scale without the jobber?

"It seems to me that the success of the candy industry in the future is going to be in proportion to the interest the manufacturer displays toward helping the jobber. Complete cooperation on the part of both of them is vitally necessary to obtain financial results.

"The beginning of the jobber's difficulties started in the year 1922, brought about by an increase of jobbers in small communities which compelled the paying of freight and drayage to compete with them.

"The impression was created that 20% gross profit was a big enough margin to bring a profit that would net the average jobber a nice income. The gradual increase in expenses were not considered very seriously; the result today has proven that such figuring will not suffice to keep the jobber in business on a profitable basis. In the face of a decreased margin of gross profit items due to nationally advertised goods which are sold on a much lower gross profit than 20%, the

possibilities of continuing at the same rate of figuring it is impossible to earn a return on his business investment.

"Referring to results prior to 1915, jobbers will find they had a much greater opportunity to make a profit on a 20% margin than they have today, notwithstanding the fact that sales were as much as half of what they are today. It can therefore be readily seen that the jobber has been placed between two fires; on the one hand highly competitive conditions compelling operation at a far greater expense; on the other hand a materially decreased margin of profit, leaving him no chance whatever to survive the ordeal, unless some relief is to be had, which is not now in sight.

"It might be said that competitive conditions are being somewhat corrected by the gradual elimination of the weak jobbers. However, this is too slow a process, and often produces contrary results. During the past two years the manufacturer has been obliged to close many good jobbing accounts, not due to credit conditions, but rather due to the fact that conditions which I have named brought about the liquidation of old established businesses.

"Is the manufacturer going to stand by and see this situation become further aggravated, or is he going to respond to the jobbers' solicitation for a closer cooperation which will give to the jobber a living profit and at the same time guarantee the manufacturer's future?

"I am frank to say that I cannot suggest a way out of the dilemma and presume it is going to be the survival of the fittest until some relief is offered, although the problem is serious all will agree.

"Here are the figures offered as

an actual cost of merchandising which seems to be the law of average of the best regulated jobber's experience.

"Goods costing 60c, with freight averaging 3c a box, salesman's commissions 6-2/5c, freight and drayage 1 1/2c, discounts allowed 1-3/5c, loss of bad accounts 2/5c, a total of 72-9/10c a box. This does not account for overhead, such as rent, insurance, interest on investment and other expenses. The greater the cost per box the less profit is the natural conclusion.

"I have endeavored to present only facts, which are submitted for your serious consideration, which I summarize as follows:

"1. The recognized economic necessity of the candy jobber or wholesaler.

"2. By concrete example we are forced to the conclusion that present conditions and cost have not only combined to prevent the jobber from enjoying a return on his investment, but are threatening the loss of his capital.

"3. The urgent need for intensive and intelligent cooperation between the manufacturer and wholesaler whereby each may operate at a profit commensurate with the services rendered and capital invested.

"During the past five years jobbers have permitted matters to take their course hoping in some manner or other they would be corrected. Years ago these hopes may have been realized no doubt, however, with today's mass production, intensive advertising, high pressure salesmanship and an ever-changing marketing plan, the problem must be solved by a thorough understanding of the relation each agency bears to and is dependent upon the other."

## Digest of the Doings of the Pennsylvania Confectioners' Association at Their Annual Meeting, Wernersville

THE annual convention held at Galen Hall, Wernersville, was well attended. The reports of your officers showed the various activities for the year. Ninety persons attended the banquet Friday night. The golf match was well handled and prizes awarded to the winners. The ladies were entertained by the committee in charge. Taking everything into consideration, the convention was a success.

The paper presented by Mr. Johnston was discussed and the remarks of Mr. C. S. Clark concerning the national advertising program were well received and cooperation promised.

The following is a list of your new officers for the year 1928-29:

A. E. Sander, president.

DeWitt, P. Henry, first vice president.

John A. Bachman, second vice president.

D. L. Clark, third vice president.

Arthur D. Bacon, secretary-treasurer.

Executive committee: Harry Dangerfield, Pittsburgh; Wm. E. Johnston, Johnstown; L. A. Hausslein, Philadelphia; John L. Messer, Pittsburgh; Wm. L. Murrie, Hershey; R. F. Kepple, Lancaster; A. D. Stewart, Reading; Frank B. Putt, Philadelphia.

Resolutions were passed endorsing the National Confectioners' Association.

Fine fellowship prevailed. Optimism was expressed for the future of the candy business, although complaints were heard that things were not so rosy at the present.

The candy industry is gradually changing in every branch due to general conditions. It is necessary to recognize these changes and requires intelligent thought and management to keep going on a profitable basis. Every individual must help work out his own salvation if he is to survive. The association is a big help, but it cannot be a cure-all for all the ills of the industry.

In order to make the candy advertising effective and national in scope every manufacturer, jobber and retailer should cooperate by

writing to the National Advertising and Educational Department of the National Confectioners' Association, 111 West Washington street, Chicago, Ill., and obtain a list of the posters, signs, cuts, etc., and use them systematically. We should all join in Sweetest Day plans this year.

### Resale Price Maintenance

Inquiries recently indicate that resale price legislation will have a much better chance at the next session of Congress. "We have retail price maintenance now by manufacturers large enough to distribute direct to retailers, and it is unfair to smaller producers who sell through jobbers to refuse the advantage to them." This is the argument being used these days and it is too true.

Senate bill No. 2751, about punch boards, was referred to the House Judiciary Committee, May 24th. No action was taken by the committee before Congress adjourned May 29th. The bill will hold the same status when Congress convenes in December. We are advised that there is not much chance for favorable action on the bill during the next session of Congress.

We acknowledge receipt of a booklet circulated by Mr. H. W. Hoops, of Hawley & Hoops, New York, entitled "Which Way to Profitable Prosperity?" and another written by him, "Trade Associations, Rights and Duties of Members." These books are very instructive and timely. We suggest that you write to Mr. Hoops for copies of these books if you have not already received one or both of them.

Elsewhere in this issue you will find a résumé of Mr. Johnston's paper on the "Economic Necessity of the Jobber." Constructive criticism of this article is solicited. Write the secretary what you think about it.

ARTHUR D. BACON,  
Secretary.

Shotwell Manufacturing Company, candy manufacturers, of Chicago, has appointed Campbell-Ewald Company as its advertising agency. An advertising campaign is planned for fall.



Duchacek with J. W. Greer Co.

Mr. Ralph Duchacek, for seventeen years employed by the National Equipment Company, has joined the organization of the J. W. Greer Company, of Cambridge, Mass.

### L. J. Schwarz at Accra

All who are interested in raw cocoa and its products will be gratified to learn of the appointment of Mr. L. J. Schwarz as United States Trade Commissioner on the West Coast of Africa.

Mr. Schwarz has been connected for many years with the Bureau of Chemistry of the United States Department of Agriculture, and it was he who investigated cocoa conditions on the Gold Coast in the winter of 1925-1926 on behalf of the Department of Agriculture and the United States Shipping Board.

The report which Mr. Schwarz made was very comprehensive and instructive and has led to great improvement in the methods of handling shipments of defective cocoa.

Mr. Schwarz's headquarters will be at Accra, and, while as trade commissioner he will have charge of American interests in general, he will give particular attention to cocoa, and doubtless the reports which he will forward from time to time regarding crop conditions, stocks and so forth will enable American purchasers of cocoa to avoid many of the mistakes into which they have been led in the past through misinformation or the lack of any information at all.

Association of Cocoa and Chocolate Manufacturers of the United States.  
Wm. K. Wallbridge,  
Secretary.



# A Practical Candy Cost Manual

Presenting a system for specialty manufacturers and another for the general line factory which requires cost data on each manufacturing department

JOHN T. RIORDA

*of the Cracker Jack Co., Chairman of the Cost Committee of the National Confectioners' Association, outlines the contents of the cost manual and a plan for effecting a standardized method of cost finding and accounting for the confectionery industry.*

We are all aware that a change is greatly needed in our industry. Virtually, everywhere this has come to be a recognized fact. Many already have suffered from the continual decline of prices and the narrowing profit margin. It would appear what prosperity we have enjoyed is threatened. I understand that the net profit of the candy industry in 1926 amounted to only 3½ per cent on the invested capital. This you will agree is entirely too low. Some manufacturers are marketing products at a price which bears no relation to the total cost. The result being the consumer gets too much—the manufacturer too little.

PAPPARENTLY there are only two avenues open to manufacturing confectioners today through which they can substantially increase their meager profit. The first is increasing consumption. The N. C. A. is conducting the educational advertising campaign in a splendid manner and the prospects are that it will be of constructive value to the industry. The other avenue is through economy in manufacturing and marketing and this can not be accomplished without the knowledge of accurate operating costs. Keener competition I feel is the principal cause for this demand of a complete view of the real cost of doing business.

For some time the Association has visioned the good that a uniform cost accounting plan would do for the industry and last year set out anew to arouse the interest of its members. At the convention last year a committee of six members and a chairman was appointed and commissioned to construct a uni-

form cost accounting system that would be especially adaptable to the operating conditions of the candy industry. Full of enthusiasm this committee made a survey of the particular methods in use and drafted the better portions into a complete system of sound principles that will work equally as well in the smallest as in the largest plant.

I now want to take a few minutes' time to tell you something about our new manual. The cost manual which we have designed is made up in two parts. In part one a very simple system is described. It is workable. Special pains have been taken to explain in detail all the necessary functions of a cost system.

## Part I—For Specialty Manufacturers

To start with a complete chart of accounts is given. It is realized that many manufacturers will not require all the accounts shown in the chart as it was drawn up to meet a variety of conditions. Those not needed for a particular manufacturer can easily be omitted. Several pages are devoted to explaining the function of the accounts so that no mistake will be made in classifying times of income and expense.

The next step in part one of the manual is the detailed explanation of preparing estimated costs of candy. A complete form is included so that the text matter may be fully understood. This subject of estimating candy costs is of tremendous importance.

How are we to know that our estimated costs are accurate? By proving the total of the estimated costs against the results of the entire business. This method of prov-

ing estimated costs is explained in detail in the manual. This feature of the system alone will be quite valuable to you.

We advocate the use of perpetual inventories as they have many advantages in their favor. However, we have provided for an alternative method and that is the use of physical inventories. Both methods are explained so that you may take your choice.

The system provides for drawing off monthly statements as we feel that all manufacturers will find this feature a distinct aid to management. However, the monthly statements may be omitted and as an alternative quarterly statements substituted.

We do not advocate actually closing the books monthly or quarterly but prefer to arrive at the necessary information for statement purposes by means of analysis paper. Complete exhibits of working papers are shown in the manual for your guidance. We might add that we have had in mind at all times the Federal income tax phase of the business and have outlined the accounting system so as to make the preparation of the returns less difficult.

Specimens of operating statements have been drawn up which show results in comparative form. These statements are monthly as well as cumulative, that is to say, for the year to date. A percentage analysis has been included. I believe you will find these statements both instructive and interesting.

## Part II—For General Line Manufacturers

We now come to part two. This part of the work is an elaboration of part one. In it has been included the departmentalization of the fac-

## THE MANUFACTURING CONFECTIONER

tory by candy departments. This is for the purpose of determining results of each class of candy—how much you are making or losing on the different classes of products. I want to make clear at this point the difference between parts one and two:

In part one the entire business has been treated as a single department, while in part two the business has been divided into candy departments. In installing the system you would use either part one or part two; not both. They have been made interchangeable; that is to say, anyone using part one may change over to part two and the change can be made from part two to part one.

### Handling "Overhead"

Another extremely important point that we have covered exhaustively is the handling of the overhead—the factory, selling and administrative expense. Much has been said about this item of overhead. I dare say that many of you could increase your profit through the reduction of this item. A proper control of expenses is absolutely indispensable to a successful business. The distribution of this overhead over product has been considered by many as a difficult task. I agree that the incorrect handling of this item in the accounts may lead to disastrous results. It is, to say the least, a very illusive thing, this overhead. Especially when we consider the effect on it by the introduction of new products. I am sure you will be delighted with our treatment of the overhead and the suggestions we have made in the way of forms and illustrative exhibits.

### How to Prepare Operating Statements

Not the least important of the material contained in part two is the section devoted to operating statements. Herein we give you suggestions as to the methods of preparation of various essential statements. Illustrations of comparative statements have been made. These statements also show the unit costs and how these unit costs are arrived at. I am sure you will want a copy of the manual for the constructive good it will do for you.

Today in the industry the systems in use range from the ordinary single entry to the highly involved

accounting system. Regardless of what system you are now using, it is lacking in uniformity with other systems and cost comparisons are impossible. Think of this "comparative" feature, whereby the manufacturer using the smallest plant can compare his costs with those of the largest and talk the same "cost language" when interchanging practical experience. Enlightened competition is most desirable—we learn from others. Uniform systems have demonstrated their value in other industries as a gauge in finding accurate costs and because of the opportunity it affords of exchanging highly beneficial information. Whether you have a bookkeeper or an accounting department, the committee had your every requirement in view when developing the system.

I would like to emphasize here that the term "uniform" has reference to methods of accounting and not to predetermined elements of costs. This is an important distinction and it is necessary for you to understand this difference. It should not be interpreted that costs are to be averaged within the industry and the members use these costs in fixing their selling prices. This is absolutely the wrong idea of a uniform cost system. The system does not hold a member to any hard or fast rule, but simply means the use of similar methods in determining costs. Due to varying conditions in different localities and in different plants, deviations in detail must be permitted, but the fundamentals should be followed throughout to insure accurate costs. As stated before, it is a system of principles, each member using these principles to determine his own costs. *No manufacturer can have costs that are identical with that of another manufacturer.*

The committee believes that the adoption of the uniform cost system in the candy industry will be a large factor in stamping out the evil of price-cutting. It is the general opinion that when a manufacturer knows his actual cost he will stand firm on a fair selling price. By using a good cost system a manufacturer will not have to guess at his cost and hope to make a profit.

### Why Previous Cost Systems Were a Failure

The outlook is most encouraging and the association will stick to its purpose until the desired goal is

reached. Some twelve years ago, as you no doubt are aware, the association published a cost manual. That it did not meet with success was soon evident. Three years later the Midland Club designed and prepared a cost accounting and cost finding plan for manufacturing confectioners. Both the National and Western Confectioners' Associations approved of the plan. The Midland cost system was adopted by about twenty-five manufacturers. This was far from satisfactory.

Let us consider for a few minutes the reasons for the failure of these plans. One of them had a very objectionable method of treating some of the expense items. Instead of charging these items as a part of the cost of the product, they were offset against miscellaneous income, such as cash discounts on purchases and interest received.

Neither of the two cost plans provided a check on the accuracy of the individual candy costs. This is one of the important features of a cost system. The individual costs cannot be controlled unless they are balanced against the results of the whole business. The total of the individual costs should balance with the costs as per books. If it does not, the costs are wrong somewhere. Unless the cost sheets are constantly brought up to date, to a higher degree of perfection, the costs will be, most likely, underestimated.

No provision had been made in either manual for the securing of departmental costs. By this I mean a monthly profit and loss statement of the hard goods department, the chocolate department, etc. I realize that there are many manufacturers who do not go to this extent in securing information relative to their business, but there are on the other hand many who feel that this information is absolutely necessary in the management of their business.

### Installation of the Cost System

A question that has not been fully decided is the plan of installation. Several methods have been suggested. I will outline what, in my opinion, is the best way to secure the general acceptance of the uniform cost accounting plan. I believe that an accounting bureau should be maintained by the association. It would be the duty of this accounting bureau to make the installations. They would also be charged with the duty of developing

## A PRACTICAL CANDY COST MANUAL.

an interest in the plan so as to make a success of it.

I advocate a definite scale of charges for performing the work of installation in a factory, the fee to be based on sales. In this way a manufacturer will know exactly what it will cost him. In this connection I should say that to smaller manufacturers the fee would be considerably less than the work is worth. We are interested in getting everyone sold on the importance of the system and want to make it as easy for everyone as we can. Of course, this means that the expense of the accounting bureau will be partially returned through installation fees, but the balance would be a general charge on the membership. In this connection I believe it a good plan to extend the same privileges to candy manufacturers outside of the association membership. There are many outside of the association who need the uniform system, and to sell one of them on this plan is to secure a friend for the association.

I also want to say that there are

undoubtedly some systems now in use that will require only minor changes to bring them in line with the uniform system. I hope that manufacturers having such systems can be persuaded to make the required changes.

### Interchange of Cost Information

The association in the future will undoubtedly undertake to interchange cost information. This is permitted by law and is of great benefit. To do this it is, of course, necessary to secure the cooperation of the membership. Under this plan the identity of the reporting members is undisclosed. The information is gathered by the secretary or by an accounting bureau in the secretary's office and reported back in group totals and unit costs by classes and territories. It should be distinctly understood that there is no possible chance of the identity of the reporting member becoming known.

As an example of items to be reported take the following: average sales price, cash discounts, labor

costs, overhead, marketing costs, and so on by both classes of candy and territorial zones. This is of direct interest to you, because the reports can be circulated so as to permit you to compare costs with group figures in your locality. Many trade associations are engaged in this activity at the present time and are doing so with success.

It should be borne in mind that in no way whatsoever must the data thus supplied be used in fixing prices or attempting to fix prices or any concerted action. The information is to be used solely for educational purposes and for the individual guidance of the member. He must use his own actual costs. This distinction is amply set out by a decision of the Supreme Court of the United States in the Maple Flooring case.

As a prerequisite to the collection and dissemination of cost information it is, of course, necessary to have the costs on a comparable basis. This is another reason why we urge the use of the uniform system.



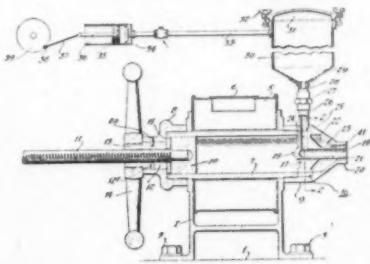
*Sweetening the Day for Crippled Children in Brooklyn Hospital*

New York Candy Manufacturers Celebrate Children's Day, June 16, by Distributing Candy to 12,000 Unfortunate Children in Institutions Throughout the City

# WHAT'S NEW?

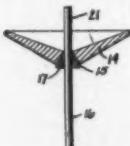
## New Patents

**1,649,308. Apparatus for Making and Filling Chocolate Tubes.** Lewis B. Hunter, Yonkers, N. Y., assignor to Remsen T. Williams, Kensington, N. Y. Filed Dec. 5, 1923. Serial No. 678,723. 1 Claim. (Cl. 107—1.)



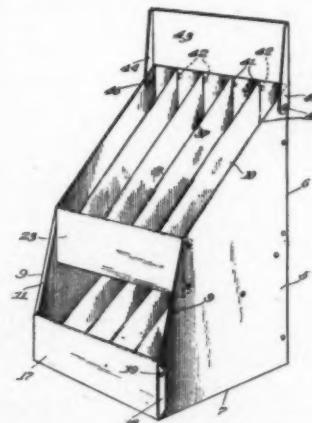
In an apparatus of the character described, a core forming nozzle, a supply chamber communicating with said nozzle and adapted to contain core forming material, a tubular envelope forming opening surrounding the core forming nozzle, a compression cylinder communicating with said opening and adapted to contain chocolate in solid state, means for applying sufficient pressure to the chocolate to force it through said tubular forming opening to form the chocolate into a tubular envelope, means for refrigerating the chocolate while in the compression cylinder sufficient to preclude the heat of compression from reducing the chocolate to a plastic state while passing through the tubular opening, and means for exuding the core forming material through the core forming nozzle into the chocolate tube thus produced and during the formation thereof.

**1,652,789. Composite Candy.** Harry S. Moore, Atlantic City, N. J., assignor to Arlington Moore, New York, N. Y. Filed Sept. 23, 1922. Serial No. 590,145. 1 Claim. (Cl. 99—16.)



The combination of a candy shell conical in shape, whereby a series of them may be nested, and having a downwardly flaring hole in its bottom, of a stick having a substantially conical candy boss molded thereon, said stick being adapted to be inserted in the hole with the candy boss filling said opening.

**1,662,637. Candy Menu Stand.** Charles Chilton Chase, St. Joseph, Mo. Filed Mar. 5, 1927. Serial No. 173,041. 9 Claims. (Cl. 211—126.)



9. In a menu stand of the class described, side walls having vertical rear edges, vertical portions at their front edges near the bottom, said edges being then directed upwardly and rearwardly at an inclination for a distance and then at an obtuse angle rearwardly to the top edge of the edges of the sides at the back, a brace member between said sides at the bottom of their rear edges, upper and lower brace members between said sides at the lower vertical portion and at the junction of the inclined portions to set the upper brace member rearwardly from the lower inclined portions at the bottom, said braces having turned edges and slots in the top edges thereof with a flange at the bottom, bottom portions spaced apart between the sides and having their forward ends engaging the braces at the front and having the sides anchored to the sides of the stand and their rear edges directed upwardly and secured to said sides, the upper bottom portion extending downwardly at converging relation to the lower bottom portion providing upper and lower supports spaced apart, partitions on said walls and having their forward ends fitting the slots of the front braces and having tongues connected to said bottom walls and upwardly directed portions, to provide compartments running from front to rear, the lower compartment being accessible between the upwardly directed portions at the rear, and having their lower ends exposed in front of the upper compartments, and a sign

member secured to the sides above the upper compartments at the rear edges of the side portion and adapted to contact with the top edge at its bottom to prevent rearward displacement of said sign.

**1,656,590. Method and Means for Molding Candy.** Alfred T. Longstreth and Paul M. Longstreth, Collingswood, N. J. Filed Feb. 26, 1926. Serial No. 90,718. 11 Claims. (Cl. 107—13.)



5. In a candy molding machine, means for rolling a mass of thick candy paste candy material into rod shaped bodies and forming the same into subdivided parts of substantially equal size, combined with means for rolling the subdivided parts into ball-shaped bodies, and additional means for rolling the ball-shaped bodies into egg-shaped forms.

**1,650,513. Candy-Crystallizing Machine.** Paul Sidney Henderson, Chattanooga, Tenn. Filed Feb. 5, 1926. Serial No. 86,301. 8 Claims. (Cl. 91—4.)



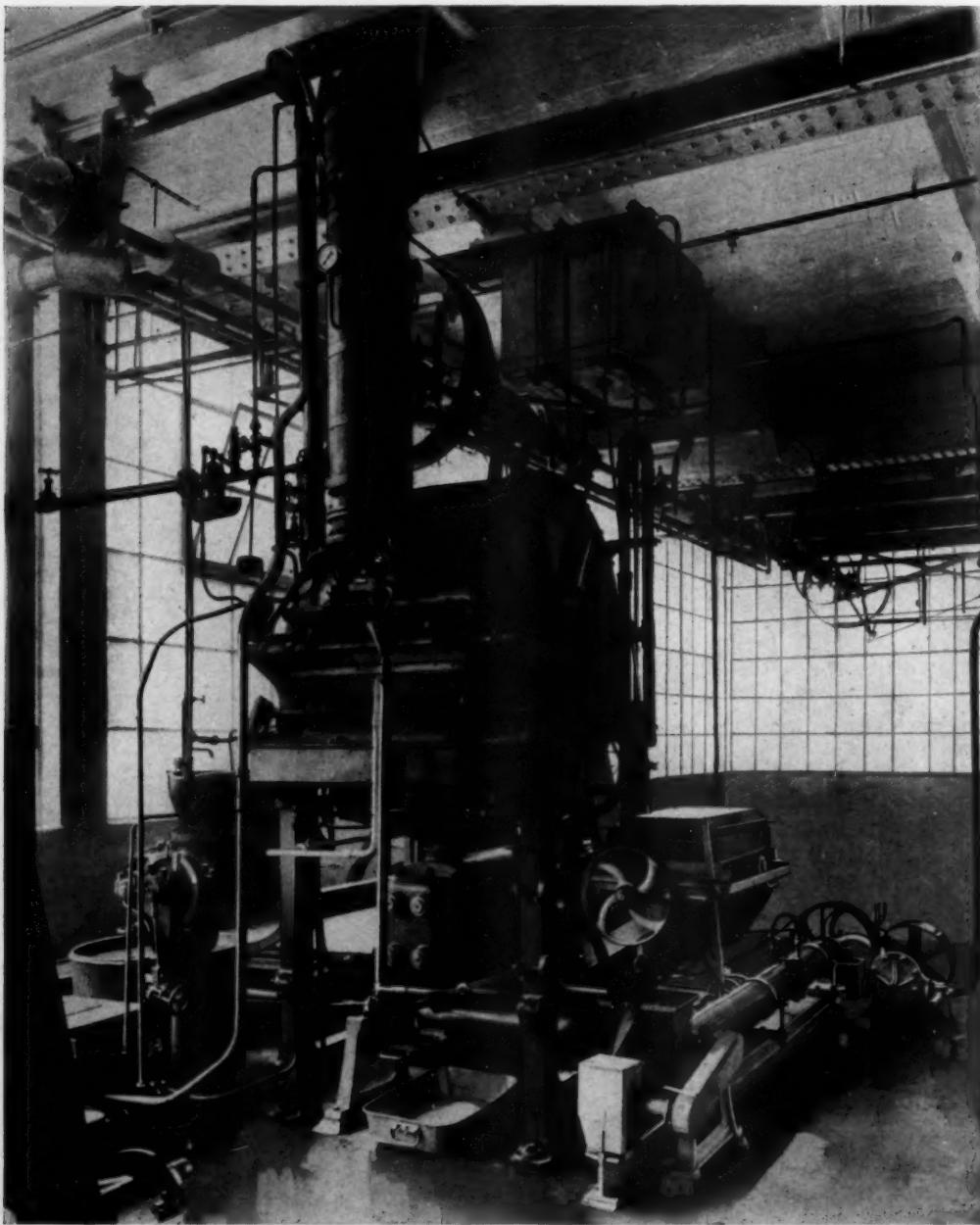
1. A crystallizing machine comprising a plurality of superposed syrup pans, and a member carrying means for supporting articles above the respective pans and movable to submerge the articles simultaneously in the respective pans at one operation.

8. A crystallizing machine, comprising a frame having superposed syrup pans therein, a rack movable vertically in the frame and carrying means for supporting baskets above the respective pans, a shaft, and cables adapted to wind on and unwind from said shaft and connected to the rack for raising and lowering it.

# Announcing

# — CONTINUOUS

Baker's  
C



← Pipe to hopper  
of depositor

BakerPerkins

# US CREAM PLANT

The Machine that is revolutionizing  
cream making



From Pre-melt Kettle to  
Hopper of Depositor in  
One Continuous Operation

Gives you a wonderfully smooth texture  
soft cream of highest quality. Will save  
you considerable floor space. Will set  
ready to coat in one hour. Automatically  
controlled by one man.

The most talked of machine at the  
Chicago Convention.

**Ask Us To Tell You More About It**

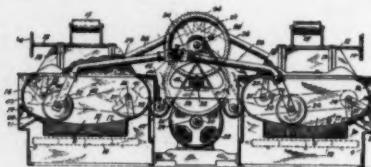
**Baker - Perkins Company, Inc.**

Factory: Saginaw, Mich, U. S. A.

Sales - 250 Park Ave - New York

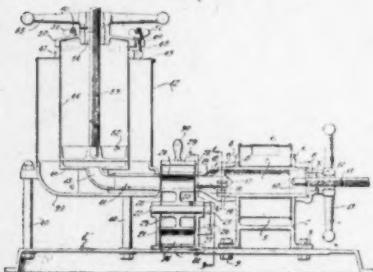
## PATENTS

**1,658,379. Chocolate Machine.** Paul G. Holstein, Carlstadt, N. J., and Emil V. Raue, New York, N. Y., assignors to J. M. Lehmann Company, Inc., New York, N. Y., a Corporation of New York. Filed June 14, 1922. Serial No. 568,329. 11 Claims. (Cl. 83—45.)



1. In a chocolate working machine, the combination with a bowl having a stationary grinding surface terminating short of the end walls of the bowl, of a reciprocatory roll operable on said surface, and revoluble means located between the end walls of the bowl and the grinding surface for freeing the walls of the bowl of and for returning the material which is forced from the surface by the movement of the roll to said surface.

**1,649,307. Method of Making Chocolate Products.** Lewis B. Hunter, Yonkers, N. Y., assignor to Remsen T. Williams, Kensington, N. Y. Filed July 16, 1923. Serial No. 651,908. 5 Claims. (Cl. 107—54.)



5. The process of molding chocolate, or chocolate and its compounds, which comprises cooling a mass of chocolate or chocolate and its compounds to a point substantially below its melting point, and then exerting sufficient pressure upon said mass of chocolate or its compounds to force it through a die opening of the desired shape, while maintaining the chocolate or its compounds cold and in its solid state.

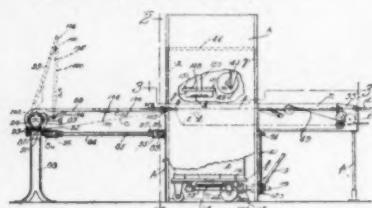
**1,664,464. Candy Box.** Frederick A. Purchas, McGraw, N. Y. Filed Dec. 3, 1926. Serial No. 152,471. 4 Claims. (Cl. 46—37.)



1. A box simulating a log cabin in appearance and including a body and a cover, the walls of said body com-

prising front, rear and end walls composed of superimposed logs, the logs at right angles to each other having interengagement, a catch supported by the body and adapted to engage the cover, and one of the logs of the box operatively engaging the catch and adapted to be moved to operate the catch.

**1,661,460. Confection-Coating Machine.** Alonzo Linton Bausman, Springfield, Mass., assignor to National Equipment Company, Springfield, Mass., a Corporation of Massachusetts. Filed Nov. 10, 1924. Serial No. 748,931. 16 Claims. (Cl. 91—3.)



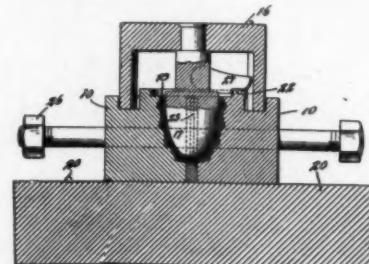
1. In a confection coating machine, a casing, an endless belt for carrying confections therethrough, spaced devices over which said belt is trained in loop form and disposed one at each end of the confection carrying stretch thereof, and means for holding said devices against movement toward one another, said means permitting either device to be lifted therefrom and when so lifted to be moved toward the other device sufficiently to allow it to be slipped endwise out of the loop of said belt leaving the latter free for removal from the casing.

15. The combination with a confection coating machine, of a feed table therefor, comprising two hingedly-connected sections normally lying end to end in a common plane, a feed belt traveling over said table in its upper lap and returning in its lower lap beneath said table, a support spaced from said machine to which support one end of one of said sections is pivotally connected, a support adjacent said machine for the opposite end of the other section, said sections arranged to fold upwardly in jackknife fashion and to swing upwardly on said pivotal connection without removing said belt into an inoperative position, and means on one section to engage the other section and prevent jackknife movement of the sections in a downward direction.

**1,662,572. Reducing or Refining Apparatus for Chocolate, Cocoa and the Like.** Frederick George Fryer, York, England. Filed July 19, 1926. Serial No. 123,471. 19 Claims. (Cl. 83—3.)

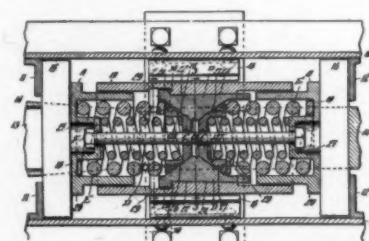
1. Reducing or refining apparatus for chocolate, cocoa or the like, comprising a pair of relatively rotatable discs having operative faces pressed together into a single plane under yielding pressure, each disc having a surface made up of elemental annular disc-areas and having reducing walls forming reducing surfaces, the total area of all those elements of said reducing surfaces which lie in an elemental annular disc-area increasing substantially proportionately with the radius of the elemental annular disc-area.

**1,647,944. Candy Mold.** Eduardo Villaseñor, Merida, Mexico, assignor of one-half to Rudecindo Peniche, Merida, Yucatan, Mexico. Filed May 28, 1926, Serial No. 112,295, and in Mexico Feb. 10, 1926. 9 Claims. (Cl. 107—19.)



2. A confectionery mold split vertically into two halves, in combination with a plate inserted vertically therebetween and a separate core, the mold cavity being of its maximum horizontal circumference at the top and formed in the plate as well as the two halves, the edge of the plate which forms part of the mold cavity being cut to retain the molded article in the plate against lateral movement in either direction.

**1,663,987. Apparatus for Coating Articles.** Charles Murdock Jamieson, Winter Haven, Fla., assignor, by mesne assignments, to Brogdex Company, Winter Haven, Fla., a Corporation of Florida. Filed Feb. 14, 1922, Serial No. 536,553. Renewed Aug. 20, 1927. 12 Claims. (Cl. 91—41.)

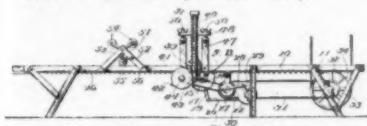


5. Coating apparatus for fruit or like articles comprising in combination, means for applying coating material including elements presenting surfaces adapted to receive a spread of the coating material and means for spreading said material thereon, said elements being arranged to present said surfaces in juxtaposition to engage the articles to be coated at points spaced circumferentially thereof, means for projecting the articles to be coated in a rolling movement along said surfaces, said elements being movable to vary the axes of rotation of said articles in said rolling movement along said surfaces, means to move said elements, and means arranged to receive said articles from said surfaces and operative to distribute adhering coating material thereover.

10. Coating apparatus comprising, in combination, composition-applying roll means, and rubbing or brushing means arranged to provide runway means receiving articles from said roll means.

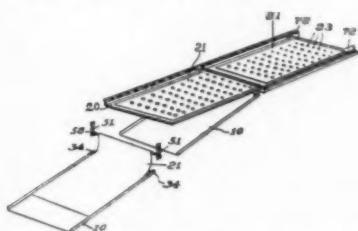
## THE MANUFACTURING CONFECTIONER

**1,672,741. Candy-Cutting Machine.** Arthur R. Thurston, St. Joseph, Mo. Filed June 23, 1921. Serial No. 479,870. 1 Claim. (Cl. 107—21.)



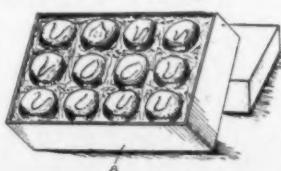
A candy cutting machine, including a support and a movable candy supporting bed thereon, uprights supported at the opposite sides of the bed, a horizontal plate adjustable on the uprights and having a pair of depending parallel guide plates each provided with an outwardly directed horizontal flange on its lower edge, a knife blade disposed for vertical slidable movement between the guide plates and projecting above said plates, a transverse head on the upper end of the blade, posts secured to and depending from opposite ends of the head, coil springs encircling the posts and bearing against the head and the support, the lower end of each post having a projecting lug, a transverse shaft beneath the support, and a rotatable disk on each end of the shaft having regularly spaced lugs for successive engagement with the lugs of the posts for depressing the latter to bring the blade into cutting relation with the candy against the upward action of the coil springs.

**1,672,522. Confection-Conveying Machine.** Jesse W. Greer and Frederick W. Greer, Cambridge, Mass. Filed May 25, 1926. Serial No. 111,506. 38 Claims. (Cl. 107—7.)



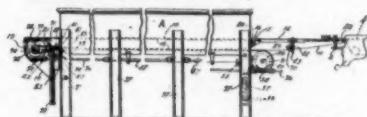
5. A machine of the class described, comprising in combination, a series of trays, means for advancing the trays along a predetermined path, plaques upon the trays, a plaque supporting surface adjacent said path, means for directing the forward end of each plaque upwardly over said surface as the trays successively reach a predetermined position, means for depositing articles upon the plaques while they are removed from the trays, and means for placing the loaded plaques upon the trays.

**1,675,415. Candy Package.** John E. Liebrich, Indianapolis, Ind. Filed April 1, 1925. Serial No. 19,773. 3 Claims. (Cl. 229—42.)



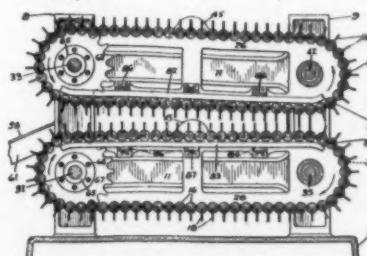
2. An article separator sheet adapted to contain a plurality of articles and comprising a flexible separator sheet upon which a plurality of articles are adapted to rest, said sheet having integral vertical irregular puckers folded in the sheet on all sides of each of the articles thereon between the adjacent articles.

**1,667,765. Delivery Apparatus for Confectionery Machines.** Alonzo Bausman, Springfield, Mass., assignor to National Equipment Company, Springfield, Mass., a Corporation of Massachusetts. Filed May 17, 1926. Serial No. 109,579. 4 Claims. (Cl. 198—203.)



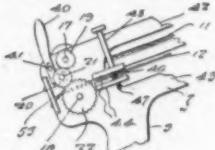
1. In a delivery apparatus for confectionery machines, an endless belt adapted in its upper stretch of travel to carry confections, an endless driving belt which in its upper stretch of travel underlies, frictionally engages and supports a substantial portion of the upper stretch of the confection carrying belt, and a second endless belt which in its upper stretch of travel moves in the same direction as the lower stretch of the driving belt and is adapted to underlie and support a substantial portion of the confection carrying belt in its lower stretch of travel, said driving belt in its lower stretch of travel and said second belt in its upper stretch of travel adapted to receive between them said confection carrying belt in its lower stretch of travel and to frictionally engage opposite faces thereof.

**1,667,763. Confectionery Machine.** George J. Armstrong, Minneapolis, Minn. Filed Apr. 25, 1921. Serial No. 464,106. 6 Claims. (Cl. 107—20.)



2. A confectionery machine including a frame, tracks on said frame opposingly projecting and arranged in adjacent pairs, a series of unconnected cutting elements slidably mounted on each pair in adjacent contacting parallelism whereby, upon movement of one element, all elements on such pair are moved, a removable portion in one track allowing a cutting element to be removed or replaced, means on each element adapted to be engaged by a driving means, supports resting against the back of the cutting elements between their respective ends to prevent them from bending, and driving means simultaneously to engage and move an element on each pair whereby both series of elements are simultaneously driven.

**1,660,541. Easily-Soluble Cocoa Powder and Process of Making Same.** Hermann Pollmann, Hamburg, Germany. Filed Dec. 15, 1925, Serial No. 75,624, and in Germany Oct. 30, 1925. 7 Claims. (Cl. 99—11.)



2. An improved easily soluble cocoa-powder comprising cocoa-powder intimately mixed with phytosterine-containing phosphatides.

**1,660,380. Confectionery Machine.** Irvin J. Handlen, Green Bay, Wis. Filed May 19, 1926. Serial No. 110,163. 1 Claim. (Cl. 107—13.)



In a candy rolling machine of the character described, a pair of side frame members, each side frame member including an upper section, and a lower section, means for spacing the sections apart and allowing for adjustment therebetween, a pair of endless belts one between the upper sections and one between the lower sections, means for moving said endless belt so that their adjacent faces will move in opposite directions, said means including a pair of gears, one associated with each belt, an idler gear therebetween and in mesh therewith, a stub shaft for said idler gear, a lever, said stub shaft being carried by said lever, and a pin and slot means for mounting said lever on one of the frame sections whereby the lever may be swung to shift the idler in proper mesh with the pair of gears when the space between the gears is varied by the adjusting of the sections.

**7,362,3. Candy Box.** Frank J. Schleicher, St. Louis, Mo. Filed July 11, 1927. Serial No. 22,721. Term of patent 3½ years.



The ornamental design for a candy box, substantially as shown.

## Another Liberty Advertisement Helps Boost Hot Weather Sales

THE National Confectioners' Association is helping boost candy dealers' hot weather sales by another full-page, four-color advertisement in the August 4th issue of Liberty Magazine. Dealers are particularly urged to tie in with the August advertisement. Judging the future by the past, we believe that dealers who see their sales hit the high spots in August will be those who take full advantage of this impressive advertising.

### **Special Dealer Helps for Identifying Yourself with the National Campaign**

*Reprints of the Liberty Advertisement* ~ in all the beautiful colors of the actual Liberty advertisement. Tells people that an advertisement for *you* has appeared in this famous magazine.

**Window Transparencies** ~ with slogan phrases reminding passers-by of the value of buying candy.

**Window Posters** ~ in catchy colors.

**Package Inserts** ~ that sell people on the wholesome goodness of candy.  $3\frac{1}{2}'' \times 5\frac{1}{2}''$ .

**Glassine Candy Bags** ~ for tastefully packaging small unit sales.

**Electrotypes** ~ of the selling slogan "Sweeten the Day With Candy." For letterheads, newspaper advertising, etc.

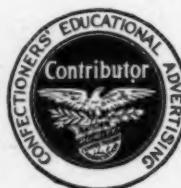
### **Write for Free Samples**

The association will send you—without charge—samples of dealer help material. Write for them today. Full descriptions and prices are given. Only by seeing these actual samples can you best determine how they will fit into your store's publicity program. (They are sold to you at cost.)

### **What are Your Sales Problems?**

Does your window display lack the proper kick? Does your advertising need a fresh punch? Do you want ideas and suggestions on any phase of your advertising or selling? Write us the story of your problems. We'll try to help

you solve them. Address: Advertising and Educational Dept., National Confectioners' Association, Room 802, 180 West Washington, Chicago, Illinois.



*This is the ninth of a series of full page advertisements which will deal with important facts about the National Confectioners' Association Advertising and Educational Campaign. Look for the tenth of this series in our August issue.*

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